

NPIC ROUTING SLIP

Approved For Release 2005/06/06 : CIA-RDP78B04770A002500070020-7

FROM: *De/DMD*

DATE: *19 Oct. 61*

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REMARKS:

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Declass Review by NGA.

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*chem mxy*DMD/NPIC-240-61
19 October 1961

MEMORANDUM FOR THE RECORD

SUBJECT: Chemical Supply System, [redacted]
Meeting held 4 October 1961, Room 500B -
Stewart Building

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- X1
X1
1. [redacted] opened the meeting with a brief description of the proposed [redacted] Photographic Laboratory. He pointed out that the Lab will be used primarily for specialized work on a wide variety of materials. There will be only an occasional demand for continuous processing of a large volume of material.
- X1
2. [redacted] outlined his proposal for storing saturated solutions of the basic chemicals needed to formulate the Laboratory solutions needed and then mixing and dispatching batches of these solutions in response to specific calls from the Laboratory.
- X1
X1
3. [redacted] commented that this method had been tried ten (10) years ago at [redacted] and did not work. In particular, elon and hydroquinone are unstable without the addition of preservatives which inhibit the developing properties of these chemicals. There are also physical problems in handling sulfites.
- X1
4. The discussion then turned to a consideration of the chemical handling system proposed by [redacted]
- X1
- a. Mixing -
- [redacted] recommended using a single tank for all mixing and pumping to large storage tanks. He has found that mixing tanks can be flushed clean with three (3) water rinses. It may be desirable to brush the tanks, but it is not necessary to buffer them.

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X1 [] has found that the best, most
uniform mixing is obtained by using on-center mixers
as opposed to the off-center mixers suggested by [] 25X
X1 [] also recommended installation of four fins
equal to 1/10th of the tank diameter, the fins to be
continuous seam-welded, not spot welded, to the tanks.

X1 [] agreed that it might be desirable to have
two (2) mix tanks, either one of which may be used to mix
and pump to any storage tank. The extra tank provides a
reserve for breakdown and additional mixing capability
during peak loads.

Subsequent discussion with [] revealed 25X
that reduction of the proposed number of mix tanks would
save less than 10% of the cost of the chemical supply
system. He recommends maintaining specialized mix tanks
to avoid accidentally pumping solutions into the wrong
storage tanks.

b. Tanks and System Materials -

X1 [] implied that a nitrogen blanket over storage
tanks was not essential. He felt that floating covers combined
with a dust cover on the top of tanks would be sufficient.
X1 [] questioned the use of sight glasses for volume
indications. They are difficult to clean and not trusted by
operators. Electrical gauges are easier to maintain and more
reliable. If sight glasses are used, they will have to be
armored and should be the snap out type to facilitate cleaning.

X1 [] recommended that hynol tubing and 316 stainless
steel be used throughout the system.

c. Quality Control -

It was agreed that the mix man must have responsibility
for quality control of the chemicals distributed to the
Laboratory. The solutions should be tested daily using the
following methods: Sensitometric; Spectrophotometric; T.A.;
and PH. Lab solutions should be dumped after use.

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d. Water -

X1 [] sees no need for deionized water; in fact he believes it is undesirable as it changes the chemical balance and raises a re-charge problem. The water needs only filtration.

e. Wash Down -

X1 [] was against the sprinkler wash-down system proposed by [] It isn't necessary, raises numerous safety and operational problems, and is of questionable efficiency.

f. Solvent Storage Area -

X1 [] pointed out that a small area would be needed to handle red chemicals - estimated at 50 1-5 gallon containers of solvents, etc.

X1 [] also questioned whether or not enough room had been allowed for expansion of the chemicals mixing-lab.

[]
Deputy Chief, DMD/NPIC

X1 cc: []

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Contract [REDACTED]

Task Order No: 01/0/18132

Assignment IV**TECHNICAL DIRECTIVE 2: PHOTOGRAPHIC LABORATORY****I. GENERAL**

The contractor shall provide the necessary professional services to recommend the optimum procedures, equipment, and staffing for the new photographic materials processing laboratory which will insure consistent production of the highest quality photographic reproductions in the volume anticipated over the next several years.

II. ASSUMPTIONS

Although the quality of photographic products currently produced at the present facility is quite acceptable, the new facility will be expected to produce products having a quality of from two to four times the present quality.

The volume of work performed by the laboratory will more than double during the next twelve months and will double again during the second year.

The laboratory will normally be expected to process and enlarge 16mm through 9 $\frac{1}{2}$ " width film. The possibilities that film up to 18" width

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will have to be processed in the future should be considered in selecting equipment. The laboratory should also be capable of enlarging to the maximum extent which the original material will permit; of automatically and manually processing cut film and paper up to 41"x41"; and of automatically processing roll film and paper up to 10" width.

The present processing equipment will be used or modified in so far as it is practical to do so and achieve the necessary quality. New equipment shall be shelf items wherever possible; however, where suitable shelf items are not available, development contracts may be written.

III. SCOPE OF WORK

The investigation shall be concerned with, but not necessarily limited to, each phase of photographic reproduction process. This will begin with the original negative; and continue with its processing; first printing of the original, subsequent printing and processing; preservation of the original negative; handling of all photo sensitive materials; and handling or use of the photographic materials within the laboratory. The recommendations resulting from the investigation shall be designed to

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insure the highest possible quality standards in the sense of repeatability of desired effects with the very minimum loss of sharpness, resolution, tone, and acuteness consistent with practicallity.

- A. A complete quality control system for the photographic laboratory including routine procedures and reports which will guarantee the highest possible quality from the photographic and chemical equipment, minimize the possibilities for operator error, assure uniformity of processing results, and identify degradation of product and the sources thereof.
- B. Recommendations for the modification or purchase of equipment or materials necessary to achieve the goals of higher quality and volume. Preliminary approval of this list by the IO will require the contractor to submit specifications, drawings, and/or detailed requirements as necessary for the purchase of said equipment or material. (The contractor is not authorized to purchase or make contractual agreements for the purchase of any equipment or materials.

The contractor may be delegated by the IO as project manager or

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officer to insure the acquisition of the desired results.)

C. A facility description and operating instructions for the

main purpose of explaining in detail, the many very special

architectural and mechanical items and areas in the new facility

X1 which will be under the jurisdiction of Technical

Branch of DMD.

D. Recommendations for ideal staffing the laboratory including table of organization, position titles, duties of each position, qualifications desired to fill position, and salary range based on the salaries paid comparable individuals in private industry.

E. The contractor will provide a technical advisor, for a term as deemed necessary and mutually agreed upon, for the purpose of assisting personnel of DMD in the explanation and implementation of the above items.

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